

THE  
AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF  
MEDICINE AND SURGERY.

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## THE AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF

## MEDICINE AND SURGERY.

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# THE AMERICAN PRACTITIONER.

APRIL, 1875.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

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## Original Communications.

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### TREATMENT AND REMOVAL OF FIBROIDS FROM THE UTERUS BY TRACTION.\*

BY THOMAS ADDIS EMMET, M. D.,

*Surgeon to the Woman's Hospital of the State of New York.*

It is my belief, as the result of observation, that fibrous tumors become pedunculated only when situated at a point where the force of gravity can be exerted. This force acts as a source of irritation to excite the muscular fibers of the uterus to contraction. I have also noted that the muscular fibers throughout the whole organ do not contract equally.

From some change of structure, due to the long-continued presence of the tumor, the fibers forming the outer wall of the uterus and covering these growths lose to a great extent their contractile power. In corroboration it has been noted when marked uterine contraction is exerted an apparent sinking in of the sub-peritoneal surface takes place, corresponding in extent to the interstitial tumor beneath. If the contraction is prolonged, the extent of the depression will lessen just in

\* Read before the Medical Society of the State of New York, February 2, 1875.

proportion as the tumor may be forced into the uterine canal. About the circumference of this neutral space of uterine tissue, forming the outer wall of the tumor, the muscular action is more marked than at any other point—a natural result that the greatest action should be in proximity to the seat of irritation. This neutral surface, when thus encircled by a contracting band, continues to be crowded in upon as rapidly as the space below becomes vacated, and the tumor pedunculated in proportion to its advance into the uterine canal.

This depression I have felt distinctly when the uterus was in a state of active contraction; but it has been a question in my mind if any real displacement of this neutral space takes place. I am rather inclined to the opinion that a ridge is formed around by the damming up, as it were, of the contracting muscular tissue about this surface, which acts as an obstruction.

When a tumor is situated at or near the fundus we can hasten the termination of the case by exciting the muscular fibers with the use of ergot, as is the accepted practice, or we may aid the action of gravity by dilatation of the outlet or by incising the cervix.

But there are many cases where the tumor is not so favorably situated, where the action of gravity can not be exerted, and where uterine contraction, if excited, is lost and inert in displacing the tumor from its bed.

For the relief of a large number of these cases it has been my practice to excite uterine contraction by making traction on the growth. This action I have continued until the tumor becomes pedunculated from being crowded out of its bed by muscular contraction closing in around and behind the mass. As an illustration of this action we may imagine the removal of a body by traction from a mass of india-rubber, where the contractility of the substance would be sufficient to close in behind as the advance was made, and obliterate the canal on the withdrawal.



My attention has been directed to this subject for a number of years, but the development of my views to the present stand-point has been very gradual. But I can not demonstrate this progress better than to present somewhat in detail several prominent cases, which have stood by the way as so many sign-posts.

In 1863 a patient was admitted to the Woman's Hospital with a fibrous tumor distending the uterus to the size of full-term, a portion of which filled the vagina and had already begun to slough. I could form no idea by a digital examination as to its attachments. I applied a pair of forceps, with the view of delivering the mass until I could reach the base, around which I intended to have applied the chain of the *écraseur*. My efforts, however, were fruitless, as the tumor was too large above to enter the pelvis. Fearing to leave the patient in this condition, I passed, with the aid of Gouch's canula, a stout twine around the mass as high up as I could within the uterine cavity. To the end of the cord I made a slip-knot, and strangulated the mass to control the hemorrhage which I anticipated. Steady traction was made on the cord by an assistant, for fear that hemorrhage would occur should the noose become relaxed. I proceeded to remove the mass, piece by piece, with the aid of a large tenaculum and a pair of properly-curved scissors. After I had taken away a large portion I was surprised that the vagina continued to be occupied by about the same sized mass as at the beginning. But I was so much occupied with the work immediately before me that I did not notice the gradual decrease in the size of the uterus until near the close of the operation. As I advanced the cord was cut by accident. There was no bleeding, so I introduced my hand within the vagina, and proceeded with the operation by pulling down with the tenaculum portion after portion until the pedicel was reached. I thus removed the whole tumor with scarcely the loss of an ounce of blood after the traction had been commenced. I

noted the blanched appearance of the mass remained the same after cutting the cord as the strangulated portion did after the blood which it contained had escaped. It was a matter of the greatest surprise to me, for which I could offer no explanation, that the pedicel for such a mass should not have been larger in diameter than the index finger. Previous to the operation I had supposed the greater portion of the tumor was buried within the uterine tissue. At the termination of the operation the uterine canal was barely five inches in depth. The mass contained a number of cysts of various sizes, and the quantity of fluid which escaped could not be estimated, but the pieces of the tumor weighed together nearly seven pounds. The patient recovered without a bad symptom.

From this time I have seldom used the *écraseur*, but have removed with scissors any growth within the uterine canal which I could reach. I have had no fear of hemorrhage, for this case taught me that it could be controlled in the manner I have described.

A few years after this case I assisted a physician in Newark, N. J., to remove a large tumor from the uterus. A portion of the growth presented through a well-dilated os, and the lower portion of the attachment was within reach on the anterior wall, some two inches within the canal. I passed the chain around the growth, but as it was being attached to the instrument it slipped from the fingers, and it became necessary to re-apply it. The chain was again adjusted by her physician, and finally attached to the *écraseur*, after great difficulty, from the fact that it seemed to include a much larger portion of the mass than before. The hemorrhage was excessive from the beginning, and increased to such an extent that it became necessary to remove the mass as rapidly as possible. To control the bleeding ice-water was injected into the uterine cavity to excite contraction. This was promptly established, but the bleeding was not arrested, and

the condition of the patient became critical. As soon as the *écraseur* had cut through and had been withdrawn, I passed my hands within the uterus and found its cavity occupied by two tumors, the one above overlapping the other. When I applied the chain it passed between them and encircled the lower one, but a portion of both had been included in the last adjustment. Passing my hand over the abdomen, I felt a sub-peritoneal fibroid, as large as a hen's egg, on the anterior wall near the fundus and to the left. I was satisfied the uterus could not contract sufficiently to control the hemorrhage with so large a mass attached to its wall and filling its cavity. I therefore attempted to break down and tear away with my fingers the remains of the tumors. This brought on violent uterine contraction, but irregular in course, so that the organ assumed somewhat of the hour-glass form. I felt the canal suddenly encroached upon, and on placing my hand over the abdomen found the external tumor had disappeared. Involuntarily I attempted to enucleate the presenting mass by opening the capsule with my thumb-nail, when it split, and the tumor escaped so suddenly from its bed that my first impression was that rupture of the uterine wall had occurred. The uterus now contracted uniformly and rapidly, so that the remaining masses were soon removed and the hemorrhage arrested. This patient convalesced slowly from the great loss of blood, but ultimately recovered under the close watching of her physician.

February, 1867, a patient was admitted to the Woman's Hospital with a large fibrous tumor imbedded in the greater portion of the anterior wall of the uterus. The tumor encroached on the uterine cavity, but only so far as to give a marked curve to the canal, as nearly the whole was interstitial. The case was under the care of Dr. John G. Perry, then one of the assistant surgeons, who, by my advice, continued the use of sponge-tents for some two months or more. After an absence of several weeks she returned to the hospital in

consequence of continued pain from uterine contraction. The os was found dilated to some four inches in diameter, with the tumor presenting as a child's head. A broad attachment could now be felt just above the vaginal junction, somewhat less in width than the portion of tumor occupying the canal, while previous to leaving the hospital merely a uniform projection existed. June 3d I operated by passing well up into the canal a large tenaculum, and by steady traction drew down or rolled out into the vagina a large portion of the mass. I took out with a pair of scissors a large wedge-shaped portion, and as the traction had already excited uterine action, I removed piece after piece, as the tumor could be drawn down, until the uterus had been emptied. When the pedicel was divided it was less than half an inch in diameter, and was formed by the capsule covering that portion of the base of the tumor which was nearest to the uterine outlet at the beginning of the operation. The location of the pedicel at this point, I have noticed, has been without an exception. I have referred to the recorded history of the case, and find that the depth of the uterus was not noted, but my impression is that it was eight inches previous to the operation. The lower portion of the base was felt just within the cervix, and the attachment of the tumor extended from that point to the fundus. The base therefore could not have been less than seven inches in length, with a width of from three to four inches. I purposely commenced the traction as high up as possible, and away from the lower portion of the base. I excited muscular action at the fundus, where it seems always to be greater than in any other part of the organ. As I rolled out the tumor from above, its separation advanced from this point downward as the uterus contracted on the diminishing size of its contents. The portions of this tumor weighed together four pounds and a half.

A case similar to the first one given was admitted to the

hospital in 1869, in the service of Dr. George T. Harrison. The vagina was filled by a portion of the tumor, which had begun to slough, and the patient already presented the symptoms of blood-poisoning. I used a cord for the purpose of making traction in the beginning, but afterward drew down the tumor as I have described and removed it piecemeal. The pedicel was not larger than the index finger, yet previous to the operation I am certain that fully one third of the tumor was interstitial. This seemed to be the case, at least so far as the opinion could be based on the passage of the sound as an indication of the depth of the uterine canal. This tumor was also filled with cysts and their contents lost, but the portions removed weighed a little over five pounds.

March, 1874, I received from Dr. D. E. Kissam, of Brooklyn, a patient in my private hospital who had long suffered from excessive hemorrhage. She was so anæmic that for nearly a month I carefully controlled the loss of blood, and directed my attention to improving her general condition before I deemed it safe to attempt any operative procedure. The uterus was very much anteverted, enlarged at the fundus, and somewhat pear-shaped. The sound passed five inches posteriorly to the base of the tumor and three inches in front of it. When the condition of the patient admitted I dilated the uterine canal fully, and reached the lower portion of a tumor, with a base below of some three inches. Every other day I dilated the canal and passed high up within it an ergot suppository. These were made by Dr. Squibb of gelatine, glycerine, and the aqueous extract, in equivalent to one hundred grains of the powder. At night one was introduced into the rectum, and on the intervening day, in the morning and at night, they were administered by the bowel. Marked uterine contraction followed the use of these suppositories, but the effect was more decided when introduced directly within the uterine canal. A practical point has been overlooked in the treatment of these cases should it be proved that the absorbing

power of the uterine mucous membrane is always as active as it seemed to be in this instance. Iodine, for example, as we all know, is taken up so as to be detected by the taste of the patient almost instantaneously. This is the only case in which I have used these suppositories within the uterus, but do not think they could have acted merely as a foreign body, from the rapidity with which they were dissolved. The uterus became broader at the fundus, from before backward, and altered in shape so much that a projection was formed on the posterior wall as the tumor was crowded in that direction; but no advance was made toward the uterine outlet, nor did the base lessen in diameter. At the end of some ten days I felt satisfied that nothing more could be gained by delay. Although the os below was kept fully dilated, the expulsive power was lost, as in a shoulder-presentation. No advance could be made, as, from the situation of the uterus and the tumor, the action of gravity could not be exerted. I decided to remove the tumor with scissors, and placed the patient under ether; but at the end of an hour I was obliged to abandon the attempt. I could barely reach the most depending portion of the tumor with my finger, and failed in getting a loop or any contrivance around the growth by which I could draw it down. March 3d, a week after, in the presence of Drs. Kissam, George T. Harrison, and Bache Emmet, I again made the attempt. I first retroverted the uterus, and then gradually drew it down to the vaginal outlet. When necessary the uterus may be thus with safety brought within reach, if no cellulitis has existed; and it is done by gradual traction, without jerking. The uterus was held in this position by a stout tenaculum in the hands of an assistant. I then passed the index finger within the uterine cavity, as a guide, and seized with a double tenaculum the fibroid high up posteriorly. By steady traction in the course of half an hour I succeeded in drawing a portion of the tumor through the os, and for the first time was able to pass my finger around the

base. The tumor was a half-spheroid in shape, situated near the fundus in the anterior wall, about three inches in diameter at the base, and unusually dense in structure. To give more room I removed with the scissors the portion which had been drawn out from the os. I introduced my hand within the vagina and the fingers into the uterine cavity, and made traction on the mass with a tenaculum in the other hand. I requested Dr. Kissam to place his hand over the fundus to steady the organ and press it down into the pelvis. The uterus was now contracting with great force, and as I crowded my fingers in around the base to aid the process of pedunculation, if I may use the term, I could feel the contracting wave passing in a spiral or an oblique direction around the uterine walls. The muscular contraction was more marked immediately around the base, as it seemed to crowd up on the tumor. Suddenly Dr. Kissam informed me that the uterus was becoming inverted, and I noticed at the same time that the base of the tumor was lessening in diameter. I passed my hand over the abdomen, and as the uterus contracted I could feel the cup-like depression distinctly through the relaxed abdominal wall. I was pleased at the prospect of the inversion, for I felt satisfied after enucleating the tumor I could easily replace the uterus. I therefore redoubled my efforts to bring about this condition, but noticed the size of the depression diminished as the base of the tumor became smaller. This depression may have been accidental, or it may have been more marked in consequence of the violent uterine contraction, and in extent would necessarily bear a relation to the size of the tumor imbedded beneath. These are points which must be settled by future observation. But in watching this case, with my fingers encircling the base of the tumor, while the uterine tissue was contracting around it, I realized for the first time the manner in which a growth becomes gradually pedunculated as the force of gravity comes into play. It was now evident to me that the traction which I had practiced for years,



without appreciating cause and effect, had produced the same result. I also appreciated that the uniformly attenuated pedicel which I had always noticed had been a natural result of the traction I had employed, and not accidental. Early in the operation I called the attention of the gentlemen present to the appearance of the portion of the tumor which I had drawn out beyond the labia. As I made traction, to excite the muscular action of the uterus, the mass became blanched, and remained so as long as the action was kept up. After the uterus, however, had begun to force the tumor out of its bed, this bloodless appearance became permanent. In this case, as is the rule, the pedicel was formed at the lowest point of the base nearest to the uterine outlet. It was unusually small, and when divided was not larger than an ordinary lead-pencil, and yet the base was about three inches in diameter at the beginning. This was fully appreciated by the gentlemen who assisted me, for on making the examination but a slight pit or depression could be detected with the finger to mark the point of attachment. The operation lasted an hour and a half, and when completed the uterus was three inches and a half in depth. After the operation I carefully replaced the uterus with the finger to its normal position in the pelvis. This patient made a rapid recovery, and within a week has visited me in perfect health.

December 8, 1874, as I was about to commence my clinic at the Woman's Hospital, Dr. Whitwell, the house surgeon, informed me that he had been obliged to substitute a patient just admitted for operation, whom I had not examined. While she was being etherized I learned that during her last labor, three years previous to admission, her physician had been obliged to remove a large growth from the uterine cavity, which had obstructed the delivery. Menstruation had been free, lasting a week; and for a profuse leucorrhœa, with a constant bearing down and backache, she had sought relief. The doctor had examined the case and reported the existence of a

large mucous polypus projecting from the os uteri. The speculum exposed a soft vascular growth as large as an English walnut, with an attachment to the posterior lip almost as great. There had been double lateral laceration of the cervix, and although this growth was outside of the uterine cavity, it really sprang from a surface which formed a part of the cervical canal before the accident. The appearance of the tumor was unusual, and led to farther examination. I found the uterus very wide from before backward for its apparent depth, and from the rectum detected a deep depression near the fundus, as if from inversion. But the passage of the sound forward five inches indicated the presence of a fibrous tumor in the posterior wall, extending nearly to the fundus without encroaching on the uterine canal. The growth was very soft, and bled profusely in consequence of the tenaculum tearing out on making the slightest traction. I therefore resorted to my favorite means for the purpose—a cord with a slip-knot. The tissue of the pedicel, which had been drawn out, was dense, and I soon discovered that it was inclosed within a sheath having an origin beyond the submucous surface. I divided with the scissors the sheath around the supposed pedicel close to the uterine surface, and proceeded to make traction as I separated the tissues with my index finger. I was soon satisfied that it was a portion of the fibrous tumor occupying the posterior wall of the uterus; and, having advanced so far, I had no alternative but to enucleate the whole tumor. In the course of half an hour I succeeded in drawing out from its capsule a mass some four inches in length, round, and of nearly uniform thickness throughout of an inch and a half in diameter. In the beginning, while making steady traction, I confined myself to separating the tumor from its capsule as it presented itself at the opening. The hemorrhage was profuse, and increased so rapidly when I had withdrawn about half of the tumor that I hastened the operation by introducing my finger and breaking up its attachment

in advance. After the mass had been removed I found the cavity was two inches and a half in depth, with the remaining posterior wall of the uterus so thin that I was surprised it had not been ruptured. An equally thin septum existed in front, between the cavity and the uterine canal, which had not been entered. The traction had excited the muscular uterine tissue to action, and the size of the organ had materially lessened; but the posterior wall being so thin, the contractile force seemed lost in that direction. Notwithstanding the depth of the cavity had been shortened an inch and a half, it was my impression its capacity had been but little diminished, since its width was greater than that of the tumor after its removal. A portion of the capsule presented at the opening, which I seized with a tenaculum, and drawing down all which was loose removed it with the scissors. The patient was now placed on the back, over a bed-pan, and the cavity washed out with a quantity of very hot water by means of a Davidson's syringe. She was afterward replaced on the left side, and Sim's speculum introduced, as at the time of the operation. The cavity was dried by a large sponge probang, and as soon as it was withdrawn two drachms of Churchill's tincture of iodine was injected. By use of the hot water the size of the cavity was greatly reduced and the bleeding diminished, but the iodine contracted it still more, and entirely arrested the hemorrhage. Some pledgets of cotton saturated with glycerine were introduced into the cavity, now about an inch and a half in depth, and the vagina was moderately tamponed with cotton dampened with a solution of alum. On the second day after the operation all dressings were removed and the cavity carefully syringed out with warm water, to which had been added some carbolic acid. This treatment was continued from day to day without a bad symptom presenting, and the cavity rapidly decreased in size. December 19th, eleven days after the operation, the temperature suddenly rose to  $103^{\circ}$ , and symptoms of blood-poisoning were detected. A specu-

lum examination was made, and a sloughing mass exposed, which at first glance appeared to be the posterior lip. I found that it was a portion of the capsule protruding, behind which a cyst had formed containing about two ounces of a thick gelatinous fluid. After puncturing the cyst I removed the remains of the capsule by means of scissors and by tearing it away with a strong pair of forceps. There was some bleeding, but the quantity was not excessive. Curiosity prompted me to pass my finger to the bottom of the cavity, when I detected another fibroid, a little smaller than a pigeon's egg, just projecting sufficiently to map out its size. This I seized with a strong tenaculum, and as traction was made by Dr. Whitwell I cut it out from its bed with a pair of curved scissors. The uterus contracted promptly on its removal, and it was beyond question due to the presence and position of this little fibroid that the cavity had not been more reduced in size at the time of the first operation. I again injected the iodine, and as it excited the uterus to further contraction, the bleeding was entirely arrested. January 7th, I found the cavity from which this tumor had been removed now obliterated and the uterus three inches deep. On the 12th instant she was discharged cured from the hospital.

The pathologists teach us that these growths have a uniform origin and a similarity of structure, into which the uterine tissue becomes incorporated. Yet from observation I had become impressed with the belief that so soft and vascular a growth, as in this instance, had always its origin and extent limited to the submucous tissues. I have met with but one other instance where this condition was an outgrowth from the dense tissue of a true fibrous tumor. I did not recognize the connection at the time, and although the case has no bearing strictly on the mode of treatment under consideration, yet its teaching is of great practical value to the subject at large.

June, 1871, I dilated the uterus of a patient in the Woman's

Hospital, and detected near the fundus a soft tumor, about an inch in diameter, which I considered a mucous polypus partially pedunculated, and the cause of hemorrhage. On the anterior wall, near the fundus to the right, was felt through the abdominal wall a subperitoneal fibroid a little smaller than a hen's egg. This tumor seemed to one side, and accidental in its connection with the growth within the canal. Dr. T. G. Thomas, a member then of the consulting board, was present, and examined the case at my request. From its shape and position it was impossible to encircle it with the chain of the *écraseur*, and too soft to be drawn down with a tenaculum sufficiently within reach of the finger as a guide for its removal. I therefore decided to destroy it by cutting open with a pair of scissors the portion protruding, and I believe the procedure met with Dr. Thomas's approval. The operation was easily done, and by the injection of iodine the slight bleeding was promptly arrested. The discharge was very profuse after the third day. To guard against blood-poisoning I directed the nurse to introduce the nozzle of the syringe just within the patulous os, and gently wash out the uterine cavity at the time of administering the usual vaginal injections. This was done for a week or ten days, and the patient was apparently doing well. One morning, during the administration of the injection, the patient suddenly complained of great pain and discomfort. On removing a nearly-empty bed-pan the nurse realized that some serious accident had occurred, and I was sent for. The patient died in a few days from a violent attack of peritonitis. The post-mortem disclosed the fact that the subperitoneal fibroid had become displaced, leaving a smooth opening, as if made with an inch-augur, from the uterine canal through the fundus into the peritoneal cavity. The tumor was found lying behind the uterus in a bed of lymph. It was soft, and the portion which had been imbedded in the uterine tissues was ragged and sloughing. Over the opening through the fundus the intes-

tines had become adherent in the attempt to repair the injury. At the time I supposed two distinct growths had existed, and in their development the intervening uterine tissue became absorbed, so that they lay in contact. It was thought, as the growth within the uterine cavity disintegrated, the capsule of the outer tumor became involved and loosened from its attachment, so that it was at length easily displaced by the injection.

Now it is evident to my mind, in connection with the growth of the previous case, that there existed but a single tumor. I am also satisfied that in the Newark case the supposed subperitoneal fibroid was nearly imbedded in the uterine tissue to the mucous membrane of its cavity. Fortunately by the uterine contractions which were excited the tissues crowded up upon the tumor so as to force it in the direction of the canal, and, although leaving so thin a septum of uterine tissue beneath the peritoneum, the cavity was soon closed up by the rapid decrease in the size of the uterus.

The practical bearing is obvious that in addition to the risk from blood-poisoning the practice is not a safe one to remove, as is frequently done, a projecting mass within the cavity without any knowledge as to its depth within the uterine tissue. When we can make traction it matters little how thin the outer wall of the uterus may be, provided we are able to excite the muscular tissue to contraction, since the space will be closed up as rapidly as the mass is withdrawn. This will surely be the case where we have a single tumor, especially if it be situated near the fundus, or even in the lateral wall, if its size be not so large as to have replaced the greater portion of the true uterine tissue. There is certainly a limit to procedure, but it is safer and is appreciable to every case where a prudent operator would feel justifiable in attempting enucleation by any method. I deprecate the practice of separating the tumor from its capsule before withdrawing it where muscular action is not excited, or to so

limited an extent that a large cavity is left from which the patient is exposed to the danger of blood-poisoning, if she does not sink from the loss of blood beforehand.

It is even more hazardous to cut into the mass, or excite inflammation within its structure by the use of the cautery or other agents, with the view of bringing about disintegration; for no man possesses the means of limiting to the tumor the inflammatory process which he will establish by this mode of treatment. Should the sloughing stop short of breaking down with the tumor, the outer uterine wall covering it, the progress has been stayed in every instance by a special interposition of Providence. Were we as familiar with the death record as we are with the result where the treatment has been survived, no conscientious man would ever attempt to destroy a uterine tumor by disintegration.

A few words in relation to the after-treatment. After the tumor has been removed, and all shreds or loose portions within reach, it is important to wash out the cavity thoroughly. It is best to use very hot water; for not only is it a prompt exciter of uterine action, but by prolonging the injection we thoroughly empty the capillaries within reach of its direct influence. After the injection we possess no better means of increasing the contraction, and of maintaining this condition, than by the free application of Churchill's strong tincture of iodine. Should there be any oozing of blood after the hot-water injection, the application of iodine is certain to arrest it, without there exists some impediment to the proper contraction of the uterus. It is an agent I have employed for this purpose more than ten years, and it is a most valuable antiseptic. I am confident that we possess no better means as a prophylactic when used as I have employed it.

Under no consideration would I introduce the persulphate of iron into a cavity to arrest hemorrhage. It possesses in itself no styptic properties, and only coagulates a mass of blood, which then acts mechanically. The blood is so



destroyed in character by contact with the persulphate that it undergoes decomposition within a few hours. From this source the patient frequently becomes blood-poisoned before any septic element has been generated elsewhere. It acts as a local irritant, and it is impossible to get rid of it until removed by suppuration. After injecting the iodine I sometimes pack in a little cotton saturated with glycerine. If more than this is needed, it is better to use damp cotton, which has been saturated with a strong solution of alum, and the tampon vagina tamponed with the same material. On the second day I carefully remove the cotton; and if there is no bleeding after washing out the cavity, I dispense with all dressings. It is necessary to devote the utmost care to cleanliness by frequent injections of warm water. To these injections may be added a little brewer's yeast as a stimulant and disinfectant, or carbolic acid, if there is any tissue undergoing decomposition. Finally I keep the patient in bed until the cavity has filled up, if a tumor has been enucleated, or until all discharge ceases from the uterine canal, if a polypus has been removed.

My experience in this mode of operating would recommend it on the score of safety. I have not lost a single patient, after the removal of growths from the uterus, in over eight years, during which time I have regularly employed the method. The only case during this period in which I deviated from my practice, by cutting into the growth and leaving it to break down, died. The details of the case I have already presented. I must state, however, that I have never enucleated so large a fibrous tumor before as the case I have presented, for I have not been favorably impressed with the results following the usual methods of operating which have passed under my own observation in the practice of others; but I have safely removed a number of small fibroids where death has frequently occurred under other circumstances. I have also operated many times by traction in pedunculating tumors which have begun to project into the canal. Formerly,

when I have operated under like circumstances, I have lost patients from blood-poisoning in the breaking down of the portion left imbedded in the uterine wall. It has been my practice, when the growth was larger than a pigeon's egg, to confine my efforts entirely to controlling the hemorrhage, and aiding the action of the uterus in forcing the tumor from its bed toward the canal. When it had projected sufficiently I then removed it by traction. I have always been very conservative in my views regarding any surgical interference with large fibrous tumors involving a greater portion of the uterine wall. While I am likely still to hold these views to a great extent, my recent experience may justify me in extending the field to a larger number of cases than formerly.

NEW YORK.

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## ON THE DISEASES OF CHILDREN.\*

BY BERNARD TAUBER, M. D.

The very great mortality incident to infancy and early childhood invests the study of the diseases of this period of life with great importance. In France, Germany, and England, where registration laws exist, it has been shown that in the first year of life eighteen deaths occur in every hundred; in the first month, ten. In this country, with the exception of some of our cities, we have no precise knowledge of the annual number of births and deaths. In New York City fifty-seven per cent of the deaths occur under five years, and twenty-eight per cent under one year. A million of births occur each year in France, and at the expiration of a year no fewer than two hundred and fifty thousand of these children are dead.

\* Read before the Southwestern Kentucky Medical Association.

The causes of this remarkable mortality are in many cases unavoidable; as, for example, malformations of internal organs and certain forms of hereditary disease. The peculiar susceptibility of the infant organization to morbid influences is another cause, while still another is the fact that certain diseases are peculiar to infancy. Preventable causes are those which arise from neglect or ignorance of hygiene, impure air, improper food, want of suitable clothing, etc.

To the anatomist the infant is a miniature man; to the physiologist a man incomplete as to some functions. To the pathologist there are some marked differences; the anatomical lesions, for example, of pneumonia in the infant are not those marking this disease in the adult, while the tendencies of this disease in its progress are more to a chronic character in the young than in the mature; and a similar statement may be made as to pleurisy and enterocolitis, the latter being especially remarkable from its tendency to take on the chronic form; and the extraordinary susceptibility of the infant's nervous system is exhibited in the occurrence of convulsions from causes which would produce slight or no disturbance in the adult organism. In general terms, it may be stated that the anatomical lesions of the diseases occurring during the first stage of infancy are less purely inflammatory than the diseases of the second stage of infancy and those of the adult; they are more destructive, it is true, but death is less frequently the result of the material disorders which they produce than of the blow given to a weak organization.\* The affections of early infancy differ, moreover, in many ways from those of the adult: the ready action of exciting causes; the rapid progress of symptoms, and the precipitate terminations of the same; the exaggerated reaction, which quickly becomes lowered; and finally the feeble plasticity of the inflammation, which gives to the organic lesions a special character.†

Hufeland has remarked that the time elapsing between

\* Bouchut.

† *Ibid.*

birth and the expiration of the first year is the continuation of a creation, of which the first half has been accomplished within the mother, while the second half is effected upon her bosom; and similarly Bouchut observes that the life of an infant is not a normal state, but a progress toward it.

A physiological process apparently so simple as dentition is frequently the cause of local or of general disease, the latter form sometimes termed *sympathetic*; and this fact illustrates the great susceptibility of the infant organism to the action of an irritant cause. Among the general disorders that may result from dentition are usually mentioned those of the brain, of the skin, and of the gastro-intestinal canal. But so far as disturbance of the stomach and bowels is consequent upon this process, the disorder may frequently be accounted for by the too great quantity or improper quality of the food given the teething child to quiet its cries. Suffering with the pain and irritation of the advancing tooth, it greedily takes any thing that may be offered to eat or drink, or is perpetually dragging upon the mother's breast, draining away a milk that possibly is deteriorated by this constant demand, or by the mother's weariness and anxiety; and hence the infant's power of digestion is weakened and the stomach overloaded. Nature rebels against such practice, and the stomach rejects its contents; but too often the warning is not understood, and the same injudicious cramming is again permitted or pursued; and to gastric irritability is added, or succeeds, intestinal disorder, an enterocolitis which is very liable to become chronic, and ultimately prove fatal.

Certain difficulties attend the diagnosis of children's diseases. Even when a child has learned to speak it can not always tell its painful sensations, nor will it to one whom it does not know, or to one whom it fears. The physician must have *tact*, kind and gentle ways, if he would win his way to a child's heart, and obtain its confidence. But even the infant—the etymology of which indicates one who can not

speak, *infans*—not yet having acquired articulate language, has another mode of expressing its feelings and making known its condition. "Before speech God has given the infant a language which the philosophers call natural language; it is a language of signs." It is our duty to learn these signs not merely from reading, but from patient observation; to study them with as much assiduity and a profounder interest than the ambitious linguist gives to the acquisition of a new language.

In the treatment of no class of diseases is a recognition of their causes, and the removal of those causes, more important than in those which we are considering. Remembering that many of these disorders originate and are perpetuated by plain violations of plain hygienic laws, our first care will be to see to the enforcement of such laws; to look to every thing pertaining to the food the infant takes, the clothes it wears, the air it breathes, its bathing, sleeping, etc.

Another principle of great importance in the treatment of these disorders is to relieve pain. The pain which might be endured by an older person without serious harm possibly will be in the infant the starting-point of convulsions, which may prove fatal, or else leave behind them organic mischief from which the subject never fully recovers; and at best keeps the sufferer wakeful and restless, inducing more or less exhaustion, and then too disturbing the rest of others. And among all the agents for the relief of pain, quite as much for children as for adults, no one is comparable to opium. Undoubtedly this agent must be used with discrimination as to the condition of the patient, for it is the patient rather than the disease which we should treat. Nor is it merely as an anodyne that opium is of great importance in the therapeutics of infancy and childhood, but also for its influence in certain inflammatory disorders; to wit, inflammation of serous membranes. Possibly too in the advance of our knowledge in the treatment of some other inflammations this agent will

be found equally useful. Possibly there is too much timidity manifested by some practitioners as to giving opium to infants, some refusing to give it at all, and seeking unfaithful substitutes in conium or hyoscyamus. It may be questioned whether, admitting the serious consequences of its injudicious use, vastly greater evil would not result were all to entirely abstain from using it.

Promptness of treatment is another principle which should not be lost sight of. Many a child has died from convulsions arising from indigestible food in the stomach, whose life might have been saved by an emetic administered an hour sooner than it was.

Another principle that may be mentioned is persistence of treatment; persistence because there are few conditions so desperate that recovery may not ensue; persistence because in the rapidity with which vital processes take place in infancy and childhood pathological products that would be permanent in the adult may be completely removed, and the integrity of organs and functions maintained.

PADUCAH, KY.

## Reviews.

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**A Practical Treatise on the Medical and Surgical Uses of Electricity.** By GEO. M. BEARD, A. M., M. D., etc., and A. D. ROCKWELL, A. M., M. D., etc. Second edition, revised, enlarged, and mostly rewritten, with nearly two hundred illustrations. New York: William Wood & Co. 1875.

When the old Greek critic pronounced "a great book a great evil" he had in his mind books on speculative philosophy, books of poetry, and the like; not such works as this, for in his times natural science was despised. To understand the books of which he spoke one was obliged to read them through. It was a task to master them; and when all they taught was understood, the reader had nothing but ideas for his labor. They gave him no power over nature. His taste, his imagination, his logical faculty, his acquaintance with human nature might be enlarged, but he had gained no knowledge of the science of phenomena.

This is a book which makes its readers wiser in matters that pertain to health. It imparts a knowledge which is practical, and which possesses the additional charm of novelty. The science of which it treats is one that owes its development to our own age. Medical electricity, especially electricity as a surgical agent, is a discovery of late years, and Dr. Beard and Dr. Rockwell have collected into the volume before us the most important facts bearing upon the subject. They have produced a thoroughly compendious work, which the publishers have brought all the resources of their art to make complete. One is at first somewhat alarmed at its size—a royal octavo of nearly eight hundred pages—but as



he looks through it and sees the number of topics discussed he is soon satisfied that it is not too large. It constitutes a sort of encyclopedia in fact, to which the reader may refer for information on any point pertaining to electricity, whether its history, its medical and surgical applications, the several forms in which it is applied, or the various instruments employed in practice. If its authors are a little disposed to exaggerate the remedial powers of electricity, somewhat oversanguine as to its capabilities, the effect will only be to draw more attention to the subject, and cause this wonderful force to be applied oftener by physicians; and this is a thing very much to be desired.

The history given of electro-therapeutics is full of curious interest. Beginning with our great philosopher, who drew electricity from the clouds, the era of Franklinic electricity, the authors bring their account down to the present day; and no feature of the subject is more remarkable than the change in professional opinion respecting the therapeutic value of electricity. Less than ten years ago, they inform us, their friends warned them against touching the subject. "To apply or even suggest the application of electricity," they say, was regarded as "a folly, if not a crime. Although every fool was not an electrician, yet every electrician was *prima facie* a fool."

This picture doubtless is somewhat overdrawn, and in this connection we would venture a little criticism on the style of some portions of this book. While it is generally unexceptionable, there are specimens of grandiloquence that might be pointed out which the authors would do well to expunge in their next edition. We would specify a paragraph on page 245, in which the following sentences occur: "Science is not a matter of geography; it knows no distinction of language and no boundaries of race. Higher than the mountains and deeper than the sea, it embraces all its disciples in one common brotherhood." This spread-eagle style ought to be left

by these clever authors to sophomores and fourth-of-July orators. It is unworthy of a solid work of science such as they have given to the world.

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**Dental Pathology and Surgery.** By S. JAMES A. SALTER, M. B., F. R. S., Member of the Royal College of Surgeons, etc. New York: William Wood & Co. 1875.

We have here a book on dentistry by an English surgeon, printed in London, in a fair type on beautiful paper, and published in New York. It is very much the old story of "carrying coals to Newcastle" to bring a work on dentistry to the United States. Of all the four quarters of the globe we suppose America is richest in literature relating to the teeth. Dentistry is the specialty of specialties in our country. Our dentists have taken the lead in all the arts pertaining to their profession. In mechanical ingenuity we think it will be conceded they beat the world. An American dentist discovered anæsthetics. Still we have no doubt our dentists will welcome the appearance of this scholarly and scientific treatise by Mr. Salter, for scholarly and scientific it certainly is in an eminent degree. We can heartily recommend it to our brethren in the country, who are obliged to be dentists as well as physicians, surgeons, and obstetricians. They will find it a most valuable guide.

In the extraction of teeth Mr. Salter finds use for the key, an instrument once so generally employed, in but a single case; namely, "where the first or second lower molar tooth is very carious on the outer edge, the decay descending below the gum and leaving an unsound surface for forceps, and with a neighboring tooth standing on each side." To these narrow limits he would restrict the use of the key.

Hemorrhage after extraction of teeth sometimes proves serious. It is to be treated by local and by constitutional

measures, according to its character. Styptics and constant pressure constitute the first; internal astringents are indicated where the hemorrhage depends on a constitutional vice. A plugging compress, as recommended by Hunter, is the plan now universally adopted. Sometimes restoring the extracted tooth to the socket has been tried with success. Tannin, spirits of turpentine, and tincture of muriate of iron are the internal remedies mentioned.

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**Transactions of the American Medical Association.** Vol. XXV. 1874.

The American Medical Association enters upon the twenty-fifth year of its existence with a volume marked by some new features at least, whatever may be thought of their value. For the long, formal, and often formidable reports on medicine, surgery, medical education, etc., which made up so large a part of former volumes, we have in the volume before us addresses on the practice of medicine, surgery, obstetrics, and on many other practical subjects, without any notice of medical education. We believe the judgment of the profession will be that this is the best volume yet issued by the association, and we are very confident that future volumes will indicate a still higher effort on the part of its members. The best minds in the profession of our country will in the end be drawn into the association, and it will become a true representative of American medicine. But for the work already accomplished by it let it have the credit due. It has entitled itself to the gratitude of every physician in our country; for it can not be denied that the strenuous efforts of the association to advance the profession have been attended with marked results.

## **Clinic of the Month.**

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THE TREATMENT OF AORTIC REGURGITATION.—Dr. Geo. W. Balfour, in the last of a series of clinical lectures of extraordinary interest on diseases of the heart, says in reference to the management of aortic incompetence:

“First of all we put the patient to bed, and endeavor to get him as nearly recumbent as possible, so as to diminish the height and consequently the distending power of the arterial column. With this view we also deaden his sensibility by the administration of chloroform, chloral, or morphia, either by the mouth or subcutaneously. The orthopnœa, which is so distressing a feature of this disease, has reference solely to the congested and œdematous condition of the lungs, and is established by nature to give the patient's respiratory muscles a better purchase in elevating the chest-walls. A wise physician knows that, however dangerous the condition of the respiration may be, the patient runs much more risk from the state of his heart. He does not argue the point with nature, but he calms her instinctive fears with the means at his command, and he feels that he has gained a victory for science when he has got the patient fairly recumbent. The inexorable mechanics of the circulation are then appeased, and we have leisure to attend to the physiological part of the difficulty. So intricately involved, however, are all our vital actions that as we can not appease the mechanical part of the difficulty without advantage to the physiological part, so also we can not remedy the physiological portion without also benefiting the mechanical portion. It is advantageous therefore to carry out both parts of our treatment at once; and,

though to the superficial thinker such a plan has the appearance of an empirical treatment of symptoms, a deeper knowledge of mechanics and of physiology, and of their mutual interdependence, will show that we are really employing scientific means according to scientific method, and that we apparently thwart nature only the better to secure the ends she aims at; thus conclusively proving the superiority of scientific art to empirical nature. While we therefore attempt by getting the patient down to lower the height of the distending column, thus at once relieving the cardiac circulation and diminishing the pulmonary congestion, we simultaneously endeavor to produce a similar relief by diminishing the area of the base of the arterial column; and this, so far as our present therapeutical armamentarium extends, we can only do by means of one drug—digitalis. It is not so long since this drug was regarded as a pure sedative to the heart; the opium of the heart, it was euphemistically termed. Now, thanks to experimental physiology, we certainly know that its action is widely different from that of opium, and greatly superior to it so far as preservation of life in this disease is concerned. It is still regarded by many as not merely useless, but positively dangerous, in the disease of which I speak—aortic regurgitation; and yet there is no other disease in which this drug is of more value, and no other in which its curative action can be more efficiently demonstrated than in this. In very large doses digitalis is employed as a sedative in many diseases, such as delirium tremens, pneumonia, etc.; but experimental physiology has shown us that such a method of inducing what our American cousins call sedation is an extremely dangerous one, as it depends upon the fact that the stimulating blood-supply is cut off by an extreme degree of ventricular contraction, which falls just short of the ordinary fatal result of digitalis-poisoning—death with the heart in systole. A full dose of digitalis maintains, however, its sedative action for some time without by any means proving fatal.

The almost fatally-contracted condition of the ventricle is not therefore the result merely of one or two energetic contractions which again relax, but is the result of a tonic contraction of the ventricle, which is excited only to a certain pitch by a certain dose of the drug, and beyond this it does not pass unless the dose is increased, nor does it greatly relax for some time, till the effect of the drug passes off. The ordinary employment of digitalis teaches us the same thing. If we gradually increase the dose at regular intervals, or if, employing a large dose at first, we persist in its use, similar phenomena occur. First we have a gradually-increasing fullness and firmness of the pulse-beat and of the ventricular systole, and then a falling off of both; smallness of pulse, feebleness of heart-beat, irregularity, and finally fatal syncope with the heart in systole. There is a regular gradation between these two extremes. So long as we employ small doses we may go on administering them daily for years, as is often done in mitral disease, without any fear of untoward result, without any dread of cumulative action; but the instant we employ large and powerful doses the difficulty of regulating the action of the drug becomes extreme, and we require to watch its action very carefully, and suspend it on the very earliest indication of its poisonous action.

"The useful employment of digitalis in aortic incompetence is purely a question of dosage. In a few months or a few years we shall be able to regulate it with much greater nicety than at present, with more comfort to ourselves and more safety to our patient; at present we must risk something for the sake of an otherwise unattainable benefit. What we desire to produce in each case is just such an amount of tonic contraction of the ventricle as shall rather more than counterbalance the dilating power of the arterial column. If our patient is obliged to be upright, a larger dose will be required than if we can lay him flat; and the larger the dose required the more carefully it must be watched. The dose must be accommodated to the

circumstances of the patient, and regulated by them, as well as by his idiosyncrasy; for some are more susceptible to the action of the drug than others.

"In the employment of a drug where accurate dosage is of so much consequence as in this it is of importance to have a preparation of uniform strength, and in this respect I have found the ordinary tincture all that can be desired. The ordinary infusion is not so uniform, nor is the crystallized digitaline so reliable. The latter is very convenient for subcutaneous injection when rapid and immediate action is necessary, but it can not be so certainly relied upon as the tincture. In the cases already related the doses of the tincture have varied from five to ten minims every four hours; but I have frequently doubled or tripled these doses, and sometimes even gone beyond that with benefit. In fact, though commencing, as you have seen, with small doses (five minims) of this drug, and trusting somewhat to other tonics, I now trust mainly to digitalis, giving fifteen minims up to half a drachm of the tincture every four hours; and in one very remarkable case of persistent threatening of complete asystole I was only enabled to get the patient out of the infirmary and sent home, a distance of a hundred miles, by the continuous use of half-drachm doses of tincture of digitalis every two hours for several days.

"The use of digitalis is always accompanied by greater or less increase of the flow of urine. So long as this keeps up we are—I speak from experience—quite safe to continue its use. When employing moderate doses of digitalis the flow of urine may halt or diminish without fear of untoward result; but in using large doses we must look upon the mere halting of the flow of urine as an indication to us to watch the pulse with great care several times a day; and if at any time it commences to thump or to falter, or if nausea be induced on movement, we ought at once to pretermitt the use of the drug. With this precaution I have never found the use of the



drug in this disease, even in these large doses, productive of any thing but relief, a relief unattainable by any other means I know of.

"Tincture of the perchloride of iron is in many cases a useful adjunct, as it helps to improve the blood and assist in the nourishment of the cardiac muscle; but now and then it disturbs the stomach, and must be omitted. It never is of so much consequence as digitalis, and a good supply of animal food may fairly enough replace it. The liquor arsenicalis stands in a different category. It is not only a hæmic tonic, but it is a special tonic to the cardiac muscle, and in moderate doses rarely disturbs digestion.

"In aortic incompetence the compression to which the ventricular muscle and its vessels are subjected give rise, as we have seen, to malnutrition. Neuralgia is said to be the prayer of the nerves for better blood; hence neuralgic pain is a frequent accompaniment of this disease. In all forms of cardiac angina arsenic is almost a specific, and in this form it certainly acts with great benefit. At present we can only employ it empirically; but it is not so long since digitalis was only employed for a similar reason, and we confidently look forward to a time when the use of arsenic in cardiac neuralgia shall be justified by accurate physiological reasons. Of course it is occasionally advisable to conjoin the use of these remedies with that of others possessing certain other specific actions, such as diuretics, purgatives, etc.; but these are to be used *pro re nata*, with reference to the individual case, and not to the disease generally. All such patients require to be nutritiously yet moderately fed, because the defective aortic pressure reacts injuriously on both the gastric and hepatic secretions, and limits both their supply and their efficiency. Ordinary alcoholic stimulants are of great use in such cases, moderately supplied, but their employment must be watched and regulated. They are only of temporary value to tide over a weakly period, and by no means possess the

permanent value of such special cardiac stimulants as digitalis, arsenic, or even iron."

TREATMENT OF ITCH.—Dr. Tilbury Fox, in a recent lecture, says, concerning this much-vexed question:

"There is no need to apply parasiticides to parts in which acari do not exist, because the irritation and eruption elsewhere are due to sympathetic action; and these irritated parts will get well if the acari be destroyed, and they do not require the use of irritant remedies, such as parasiticides are, but soothing remedies.

"My rule is this: if the disease be recent, if it be only slightly marked, if it began about the hands, and there be no cuniculi about the penis, I order the parasiticide to be rubbed into the interdigits, the palm of the hand, and the wrists, and I apply a soothing lotion to all other irritable parts of the body. If, however, there be—I am speaking of the slighter degrees of the disease—cuniculi about the penis as well as the hand, and especially if the disease appeared to begin coincidently in point of time by itching about the lower part of the abdomen, then I apply the parasiticide to the hand and the penis; but even here I do not rub in the remedies very long (for three nights and three mornings); and I only, for precaution's sake, let the patient smear the parasiticide upon the scrotum and the thighs, and for two or three times. I then order a soap-bath, a change of linen, and I expect my patient to be quite well. The absence of pruritic irritation at night on the third day I take as a good test to the cure of the disease. In no case do I use any but parasiticides of moderate strength. Half a drachm of sulphur to the ounce of lard is a sufficiently strong ointment, if sulphur be the remedy chosen.

"In bad cases no doubt the acari are disseminated widely, and active treatment is needed. One remedy in common use is the sulphur-bath. I think a caution is needed as regards

its use. I believe that it is abused. Though I much prefer a good soaking in a sulphuret-of-potassium bath, and the prescription of a mild parasiticide ointment, yet sulphur vapor-baths may be employed; but I think a single one properly administered—at most two—sufficient. I would have the patients well washed first of all with soap and water, and then put into the sulphur-bath. If the effect be that the pruritus at night is destroyed, I do not think it needful to repeat the bath, especially where the skin is much inflamed. These baths have cured ~~scabies~~ in many cases, but have set up a severe inflammation and pruritus in the skin that are most difficult to subdue. I never use sulphur vapor-baths in itch on that account, except where the disease is of the severest kind, because I believe all the acari can be destroyed by simpler and less irritating applications. In these cases the same rule holds good, I think, as in the simpler cases. It is easy to overtreat these cases. If at the end of a few rubbings with mild sulphur or storax ointment the skin be less inflamed, less irritable, the vesicles and pustules drying up, and the patient get a good night, I consider that the itch itself is practically well, and I then treat by parasiticides the usual haunts of the acari and soothe other parts. But there is another very important matter in these cases. It is to keep the same linen on next the skin during the use of the parasiticide, and when a change of linen is made to disinfect all the clothes by heat." (*British Medical Journal.*)

**SUPRACONDYLOID AMPUTATION OF THE THIGH.**—At a recent meeting of the Surgical Society of Ireland Prof. W. Stokes read a paper on this special form of operation, and again drew attention to the advantages which he considered might be claimed for it. He presented casts of the stumps resulting therefrom in seven cases which he had himself operated on, and also a cast of a stump from a case of Mr. Richardson's, upon which that gentleman had performed the operation with

a most successful result. Prof. Stokes's paper contained the particulars of the two last cases upon which he had performed supracondyloid amputation, according to the rules laid down in his former communication to this society, May, 1870. In both these cases the operation was undertaken in consequence of necrosis of the upper third of the tibia, with synovial effusion and thickening in the knee-joint, and for extensive necrosis of both bones of the leg respectively. Both patients recovered well, and with good, shapely, and useful stumps. The success of the operation depended upon the site of the femoral section, which should be from half to three quarters of an inch above the articular cartilage. The medullary canal was not thereby opened, and the liability of the split patella tilting upward obviated. To prevent the latter tendency Prof. Stokes had in the last cases he operated upon stitched the surfaces of the two bones together with carbolized cat-gut sutures, and left the ligature in. The advantages which Prof. Stokes claimed for this operation were twofold: first, those peculiar to the situation at which it was performed; and second, those peculiar to the operation itself. In the first category might be enumerated the circumstances that the stump obtained was more useful than that from other amputations of the thigh, and the danger and shock of the operation less; that there was diminished liability to the formation of tubular sequestra; that pressure could be borne on the face of the stump, and that the patient could walk without appearing as if he had ankylosis of the hip-joint. The special advantages were: 1. The posterior surface of the anterior flap being covered by synovial membrane, there was less danger of suppuration and of purulent absorption; 2. The possibility of the patella slipping was prevented; 3. The existence of an osseous covering to the cut surface of the femur; 4. The vessels were divided at right angles; 5. The diminished liability to sloughing of the anterior flap from its being covered with synovial membrane, and also the resulting rounded-cone form of the

stump, which had no tendency to become conical; 6. The preservation of the normal attachments and functions of the extensors of the leg. In conclusion, Prof. Stokes remarked that as yet the mortality after this operation in Ireland had been *nil*, and that he had received most favorable opinions as to its advantages from several surgeons.

In a discussion which followed Prof. Stokes's paper Dr. Corley said he had recently performed Mr. Carden's operation, and was not pleased with the results, as two ugly projecting pieces of bone were left, and the flap being brought close to the sawn end of the bone, the consequences might be imagined. In Prof. Stokes's operation this pressure on the flap was obviated. Instead of stitching the bones together, as had been done by Prof. Stokes, he would suggest section of the rectus and cruræus muscles, so as to prevent the tilting up of the patella.

Professor Macnamara had performed the supracondyloid operation in a very unpromising case with most satisfactory results. The splitting of the patella was accomplished with the greatest ease.

Mr. H. G. Croly thought that the operation brought forward by Prof. Stokes was more suited for cases of necrosis, or of severe injuries to the bones of the leg, than for cases of diseased knee-joint; the synovial membrane, which was utilized in the supracondyloid amputation, being diseased in cases of "white swelling." As regards the mortality of operations in this situation, he had not lost one of the several cases of Teale's amputation he had performed.

Mr. B. Wills Richardson said, to prevent tilting forward of the patella in the case in which he had operated on according to this method, he had divided the tendon of the rectus; a proceeding which did not weaken the power of the stump, and which he preferred to putting a ligature through the small portion of the patella left after the removal of its articulating surface.

Prof. Stokes, in reply to the question if the patella was diseased in any of his cases, said he would hesitate to divide the extensors muscle if possible. In his last case there was extensive disease of the soft tissues, but the knee was not diseased in any case. (*Irish Hospital Gazette.*)

SHAMPOOING IN THE TREATMENT OF SPRAIN.—Prof. Broca does not believe in the efficacy of absolute rest in sprains, and attaches great importance to shampooing. Its omission in ordinary practice was much to be regretted, and it would in some measure account for the success of bone-setters. M. Broca expresses his surprise that the subject is so lightly treated by writers, and took occasion to explain what shampooing was, and its mode of action in the treatment of sprains, etc., as follows: "Primary shampooing" consisted of pressing or kneading the swollen tissues with the fingers, then of alternately flexing and extending the joints affected. By this pressure and forced motion the extravasated liquids are dispersed into the subjacent cellular tissue. After the first shampooing the pain and swelling return; but on the second day, when the operation is repeated, its effects last much longer, the pain is diminished, and after a few days, during which the operation is regularly practiced, the pain and cedema disappear completely. "Secondary shampooing" is applicable to cases that had not been treated, or imperfectly so, in the first instance, and in which the pain, swelling, and inability to move have persisted. In such a case he would begin with gentle frictions, which are to be gradually increased, and to be applied to the most painful parts.

The counter-indications against this mode of treatment consist of acute inflammation of the parts; as in such a case the operation of shampooing would not only be intolerable, but would increase the inflammation. In all cases of sprain the utmost care and attention should be paid with the view of forming a diagnosis, as it would be unpardonable in any

surgeon shampooing a fractured limb, a practice not infrequent among quacks and bone-setters. In case of doubt better treat the patient upon ordinary principles than to resort to the cruel and unscientific method of shampooing under such circumstances. After each sitting he applies a roller steeped in goulard or some other resolvent lotion, and enjoins rest, absolute or otherwise, according to the nature of the case. (*Ibid.*)

THE BROMIDE OF IRON IN CHOREA.—Professor Da Costa, in a recent clinical lecture on this subject (Medical and Surgical Reporter), says, "Having now used it for three or four years, my experience from the treatment of a large number of cases, giving abundant opportunity to witness its good effects, induces me to like it better than any other one article in the treatment of chorea. It should be given in increasing doses, never commencing with less than five grains for a child, and rapidly increasing the dose to twenty. It may be given in plain syrup and water in the form of a pill, or better, in an effervescing powder. It not only affects the chorea, but also impresses the nervous system as a sedative, quieting it, and giving the patient rest. It is also a valuable agent in treating the incontinence of urine in children. It was in a case of this kind, complicating chorea, that I first observed its value; being surprised and pleased to see that, as the symptom which led to its administration improved, the chorea also diminished and soon disappeared. Since then I have used it almost continuously. Local chorea, or clonic muscular spasm, such as twitching the eyelids, etc., in hysterical women, are sometimes cured by this drug after the failure of other remedies. In answer to the question whether it is the bromine or the iron that benefits, I think it is the combination; that neither *alone* accomplishes the result; for you will find it to benefit cases that have previously taken iron without improvement; and as regards the other bromides, we certainly can not claim



for them any especial value in chorea, as they frequently disappoint us. The remedy occasionally fails, as all remedies sometimes do in this obstinate affection, but it certainly is one of the most valuable agents we possess for the treatment of chorea."

DYSENTERY CURED WITHOUT OPIUM.—Dr. J. H. Carstens, in a paper in the *Detroit Review of Medicine and Pharmacy*, says, "Dysentery being an 'infectious febrile disease,' due to a specific poisonous germ, and quinine being the best remedy to destroy and neutralize the specific poisons, it ought to be good for dysentery. Ulceration being a prominent result of dysentery, as quinine diminishes ulceration, this is the remedy. Hemorrhage is a prominent symptom, and as ergot contracts the smaller blood-vessels and prevents hemorrhage, that is the remedy. Severe spasms and tenesmus being most complained of by the patient, and ipecac being most emphatically an antispasmodic, it is good for dysentery. The proportions of these remedies in each suppository should be regulated by the symptoms. 1. By means of suppositories we can cure dysentery; 2. This is the most rational and scientific mode of treating this disease; 3. Children object less to their use than to nauseous drugs administered by the mouth; 4. And that probably quinine, ergot, and ipecac are the best remedies to use at present at our command." The following is the formula used by Dr. C. in a child five years old:

R. Pulv. ipecacuanhæ, . . . ʒss;  
 Pulv. ergotæ, . . . gr. xv;  
 Quinæ sulph., . . . gr. iv;  
 Olei theobrom, . . . q. s.

For twelve small rectal suppositories. Introduce one every two hours.

SUBHYOID PHARYNGOTOMY.—Langenbeck has now performed this operation twice; one case recovered and one died. The

method followed is thus described: The first step is tracheotomy, after which a sponge is used to plug the larynx and prevent the blood entering the trachea during the further steps of the operation. This done, the incision along the lower border of the hyoid bone is made, reaching from one omohyoid to the other. The fascia and sternohyoids having been divided, the thyrohyoid membrane and finally the mucous membranes are cut, and the epiglottis thus exposed is drawn forward by forceps. When the cut is properly made the larynx is found to drop away to some extent from the hyoid bone. The superior thyroid artery and nerve are not in the way in making these incisions. When the larynx is thus drawn forward the interior can be inspected, and any growths removed by the usual means. The author thinks the operation indicated where (*a*) foreign bodies in pharynx, situated in the pharyngo-laryngeal cavity, can not be removed by the mouth; (*b*) tumors in this part of the pharynx are seated with broad basis in the mucous membrane, or in the wall of the pharynx between the mucous membrane and the muscular layer; (*c*) growths exist on epiglottis, aryteno-epiglottidean ligaments, or arytenoid cartilages.

MASSAGE IN ABSCESS OF THE CORNEA.—Dr. Osio, of Barcelona, recommends the application of massage in abscess of the cornea. Donders called attention, in 1872, to the practice as one that had yielded him excellent results. Dr. Osio has employed massage of the cornea with success in certain diseases of the eye. He combines the use of aqueous vapor with massage by the following method: an apparatus charged with an infusion of camomile is placed before the patient's eyes (which have previously been covered with a double layer of fine muslin) at such a distance that the vapor reaches the eyes at a temperature of from 90° to 100° F. At the same time massage of the eye should be performed with the fingers over the muslin, rubbing it up and down, from side to side

and finally by a circular movement pressing upon the center of the cornea. At intervals the apparatus may be brought nearer, so that the eyes may for a few moments be subjected to steam of a higher temperature than that indicated. This vapor-bath should be continued for half or three quarters of an hour, and during this time the massage should be repeated from eight to ten times, with a duration of from one to two minutes upon each occasion.

IS MERCURY A CHOLAGOGUE?—In a paper by Dr. Charles Murchison on the treatment of functional derangements of the liver, in which he reviews in his calm and philosophic way the action of various drugs on the liver, he thus speaks (*British Medical Journal*):

"The results of experiments upon the lower animals have added greatly to the discredit previously thrown upon mercury by its failure, when brought to the test of accurate clinical observation, to absorb plastic lymph in most forms of inflammation; and some eminent physicians are even of opinion that mercury and its preparations ought to be erased from our pharmacopœia. On the other hand, it has been fairly objected that the results of experiments with mercury upon dogs do not warrant conclusions as to its effects upon man; and even granting that in man mercury does not increase the quantity of bile secreted by the liver in health, it does not follow that in disease there may not be some condition adverse to the formation of bile, which mercury may have the power of removing. Much, however, of the difference of opinion between the physiologist and the practical physician may be reconciled by keeping in mind the osmotic circulation as constantly going on between the intestinal contents and the blood. A large part of the bile secreted by the liver and thrown into the bowel is constantly being re-absorbed, to reach the liver again; and accordingly, when the common bile-duct is tied and a fistulous opening into the gall-bladder

established, the quantity of bile which escapes from the fistulous opening immediately after the operation is much greater than at any time subsequently. (Schiff.) Mercury and allied purgatives produce bilious stools, by irritating the upper part of the bowel and sweeping on the bile before there is time for its re-absorption. The fact of mercury standing at the bottom of the scale of cholagogues in Röhrig's experiments is accounted for by its surpassing other cholagogues in this property; for, of course, the larger the quantity of bile that is swept down the bowel, the less is re-absorbed and the less escapes from a biliary fistula. That mercury does act especially upon the duodenum is proved not merely by the large flow of bile which follows its action, but by the fact, discovered by Radziejewski, that leucin and tyrosin, which are products of pancreatic digestion, under ordinary circumstances decomposed in the bowel, appear in the fæces after the administration of mercurials. It would appear then that mercury by increasing the elimination of bile, and lessening the amount of bile and of other products of disintegrated albumen circulating with it in the portal blood, is after all a true cholagogue, relieving a loaded liver far more effectually than if it acted merely by stimulating the liver to increased secretion, as was formerly believed, and as some authorities still maintain; for in this case it might be expected to increase instead of diminish hepatic congestion. It is not impossible also that the irritation of the duodenum by calomel and other purgatives may be reflected to the gall-bladder, and cause it to contract and discharge its contents, and thus account in part for the increased quantity of bile in the stools.

"There are also, I think, grounds for believing that, apart from its increasing the discharge of bile from the bowel, mercury exerts a beneficial action in many functional derangements of the liver, in whatever way this is to be explained. Patients of the greatest intelligence suffering from hepatic disorders constantly declare that they derive benefit from

occasional or repeated doses of mercurials, which no other medicine or treatment of any sort confers; and the skepticism of the most doubting physician would, I believe, be removed should he unfortunately find it necessary to test the truth of their statements in his own person. It is not impossible that the good effects of mercury on the liver and in some forms of inflammation may be due to its property of promoting disintegration. Mercury appears to have the power of rendering effused fibrin less cohesive, and so more easily removed by absorption than it otherwise would be. Modern physicians of high standing, and little likely to be accused of credulity as to the beneficial action of drugs, have thought that mercury is useful in croup, by causing a degradation and disintegration of the plastic membrane. If this be so, it seems not improbable that mercury, which from experiments we know to reach the liver, may under certain circumstances act beneficially by promoting or in some way influencing the disintegration of albumen. The remarkable effect of mercury on constitutional syphilis probably admits of a similar explanation. But in whatever way it is to be explained, the clinical proofs of the efficacy of mercury in certain derangements of the liver are to my mind overwhelming. I say so the more advisedly because I was taught to regard mercury as a remedy worse than useless, not only in hepatic diseases, but in syphilis. It can not therefore be said that the convictions forced upon me by experience are the result of preconceived opinions."

ON SALICYLIC ACID.—We extract the following from a paper, by Dr. E. R. Squibb, read before the Medical Society of the State of New York, February 2, 1875:

"Salicylic acid is in minute broken acicular crystals, which give it the appearance of a granular powder, soft and smooth under the pestle or knife, but somewhat rough and resinous when rubbed between the fingers. This powder is odorless and nearly tasteless. It has, however, a sweetish and astringent

gent after-taste, with slight acidity in the fauces, but none in the mouth; and, though tasteless, it leaves a disposition or inclination to expectorate which continues for some time.

"It is practically insoluble in cold water, but is very soluble in hot water; and the water of a hot solution retains when cold, in proportion to its coldness, from about one part in two hundred and fifty to one part in five hundred of the solution. The presence of various neutral salts in small proportion in the water render it far more soluble. Up to this time phosphate of sodium seems to have been chiefly used in Germany to render it more soluble in water for medicinal purposes, and it is said that three parts of phosphate of sodium will render one part of the acid easily soluble in fifty parts of water. It is much more soluble in alcohol and ether than in water. It melts at about  $125^{\circ}\text{C.} = 257^{\circ}\text{F.}$ , and sublimates at about  $260^{\circ}\text{C.} = 392^{\circ}\text{F.}$  In common with other similar acids it forms salts with the principal bases, but these seem thus far to be difficult to make, and their effects have not been investigated.

"It is used for medical and surgical purposes, either dry or in solution. When used dry it is sprinkled on wounds, ulcers, or dressings, in the form of very fine powder, in very small quantities, either simply powdered or mixed in various proportions with some diluent, such as starch. When used in simple solution, either for spraying surfaces or for washes or gargles, it is used in tepid solution of about one part to three hundred parts of water. Where stronger solutions are required for washes, gargles, or to moisten dressings, one part of the acid and three parts of phosphate of sodium to fifty parts of water have been used. When applied to wounds it appears immediately in the urine.

"Its alleged advantages over all other antiseptics are: 1. It is far more powerful and effective in smaller quantities. 2. It is in all quantities, necessary for complete effectiveness, entirely devoid of irritant action upon the living tissues. It is not

caustic nor corrosive in any quantity, and never produces inflammation. In large quantities it may be irritant and painful, but yet rarely surpasses a stimulant effect, while it appears to be quite neutral in the very small quantities, which are yet thoroughly effective. 3. It is said to reach and prevent processes of decomposition which are beyond the reach of all other antiseptics or antiferments. These processes are of two kinds; namely, vital, or those in which living organisms have an important part, such as that produced by yeast, and many of those which occur in putrefaction; and chemical, or those which occur independent of vitality, as the production of the volatile oils in mustard and bitter almonds, the effect of disease, etc. Now, while carbolic acid and other antiferments are azymotic, or completely arrest or prevent fermentations of the first kind, they are powerless with the chemical processes. Salicylic acid is said to be more effective with the vital ferments, and equally effective with the chemical. 4. In quantities said to be thoroughly effective it is entirely odorless and tasteless and harmless, while it has no poisonous effect in any reasonable quantity.

"Professor Thiersch, of Leipsic, used it upon contused and incised wounds and in operations with excellent general results, destroying the fetid odor of cancerous surfaces and pyæmic ulcerations. To such uses this writer would add the suggestion that for washing out the cavities of the abdomen and chest after those operations which tend so strongly to septicæmia, solutions of salicylic acid would seem to offer very great advantages, should it prove to be as bland and unirritating as it is stated to be, and yet so effective.

"If now salicylic acid shall prove more potent than the phenols the farther gain will be very great, and the researches upon it will again lead up toward future discoveries of still greater power."



## Notes and Queries.

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COMMENCEMENT EXERCISES OF THE THIRTY-EIGHTH ANNUAL SESSION OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISVILLE.—The Medical Department of the University of Louisville closed its thirty-eighth annual session by conferring the degree of Doctor of Medicine on one hundred and thirteen gentlemen. The *ad eundem* degree was conferred on the following gentlemen: C. W. Parsons, M. D., Kentucky; Cicero Buchanan, M. D., Tennessee; J. Q. Bigelow, M. D., Indiana; Henry Jamison, M. D., Indiana; A. B. Brookins, M. D., Florida; J. J. Johnson, M. D., Indiana.

### PRIZE-WINNERS.

Dr. D. T. Bridgforth, of Mississippi, the Faculty gold medal for the highest standing in the general examination for graduation.

Dr. Benjamin F. Frishe, of Kentucky, the Faculty silver medal for the student standing second in the general examination for graduation.

Dr. Edward R. Anthony, of Georgia, the gold medal offered by Captain W. C. Hite to the member of the class exhibiting the best proficiency in physiology. Drs. B. F. Frishe, W. M. Mason, and J. H. O'Reilly (a first-course student), of Kentucky, attained figures in the examination but a fraction below the successful contestant.

Mr. H. B. Kurtz, of Kentucky, a first-course student, the prize by Prof. J. M. Bodine, a gold medal, to the student exhibiting the best attainments in anatomy. Drs. N. B. Bristow, of Illinois; B. F. Frishe, of Kentucky; D. T. Bridgforth, of Mississippi; L. J. Powers, of Alabama; J. W. Kennedy, of Tennessee; and H. W. Glasscock, of Kentucky, well and eminently deserve honorable mention in the order named.

Dr. Felix Coblens, of Kentucky, the gold medal offered by Capt. J. W. Goslee to the member of the class who should prepare the best book of notes on Prof. L. P. Yandell's lectures on therapeutics. The book prepared by Dr. J. H. Hickman, of Kentucky, in contesting for this prize is so meritorious that Professor L. P. Yandell presents him a copy of Professor Austin Flint's work on Practice.

Dr. Dryden Johnson, of Tennessee, a first-course student, the gold medal offered by Capt. Z. M. Sherley to the member of the class who should pass the best written examination on "The Phenomena of Malaria." Of the contestants, ten in number, several were so nearly at par with the gentleman who won the honor that there was some difficulty in awarding the first place. They earned in the order named the merit of honorable mention: J. H. O'Reilly, of Kentucky, a first-course student; Drs. I. A. Shirley, C. R. Wilson, Benj. F. Frishe, John F. Spangler, A. C. Schuman, Thos. J. Clark, J. A. Pate, and B. S. Read, of Kentucky.

The gold medal offered by Col. S. B. Churchill was awarded to Dr. B. B. Taliaferro, of Virginia, for the best notes on the surgical lectures of Prof. R. O. Cowling.

Dr. George R. Dawson, of Tennessee, a case of instruments, by Prof. John E. Crowe, for the best examination in obstetrics and diseases of women and children. Drs. D. T. Bridgforth, of Mississippi; H. W. Glasscock, B. S. Read, J. W. Baughman, James H. Ashlock, of Kentucky, and J. L. Powers, of Alabama, Prof. Crowe thinks worthy of honorable mention.

Dr. A. Shirley, of Kentucky, the prize by Prof. Crowe, "Barnes on Diseases of Women," for the second best examination on the same subjects. Dr. W. M. Mason, of Kentucky, so nearly tied Dr. Shirley in this contest that Dr. Crowe duplicates the prize.

Dr. Benjamin F. Frishe, of Kentucky, the prize, a pocket-case of instruments, offered by Messrs. Arthur Peter & Co., wholesale druggists of this city, to the member of the class who should show the greatest proficiency on the subjects taught by Professor Holland.

Dr. D. T. Bridgforth, of Mississippi, the case of surgical instruments offered as a prize by Mr. Simon Jones, of "The Pharmacy" in this city, for the highest proficiency in operative surgery on the cadaver. Drs. J. N. Baughman and J. H. Page, of Kentucky, won honorable mention in contesting for this prize.

The valedictory was by Prof. D. W. Yandell, M. D., and was as follows:

*"Gentlemen:* 'To preserve the living and make the dead to live, to keep men out of their urns and discourse of human fragments in them, is not impertinent unto our profession, whose study is life and death, who daily behold examples of mortality, and of all men least need artificial mementos or coffins by our bedside to remind us of our graves.' These are the words of Sir Thomas Browne, who was one of the luminaries of our profession two hundred years ago. Your studies heretofore have related to the living, and your business hereafter will be chiefly with them. We hope it will be a long time before you are troubled much with questions relating to the dead. In one sense, however, and that a very important one, the question as to the proper disposition of the dead concerns especially medical men. The subject of sepulture has become in some parts of the world one of deep concern as bearing upon the health of communities; and as men crowd more and more into cities, it must in time claim the anxious consideration of a much larger number. As guardians of the public health, physicians must indicate and enforce the hygienic bearing of the subject. To us, it is true, the question has no present interest, and for ages to come it is not likely to press upon our people. And yet even here in Louisville it has assumed a practical shape; for since the town was laid out two public cemeteries have been filled and closed, and the city is fast stretching around and beyond our beautiful Cave Hill. But in countries where the population is dense it is already a question of most serious magnitude how they shall dispose of the dead in such a way as not to affect injuriously the health of the living.

"Rest is the thought suggested by death. The body after 'life's fitful fever' seems to be at rest. The luster of the eyes has fled; the muscles are rigid; the countenance has lost its animation. All appears to be in a state of repose. But it is not rest. Every moment of life was one of ceaseless activity and change. At no period from birth to the closing hour was it for a moment the same body. The living particles that composed it in infancy had been exchanged for other particles in youth, and those that formed the buoyant body of the young man had given place to others in the frame bent by age. Rest in all its pilgrimage there was none; and after death, when at last all seems to be still, a new arrangement of the elements which constituted the frame is begun. The

hydro-carbons that entered into its composition are resolved into the more simple forms of carbonic acid and water; the nitrogen compounds are converted into ammonia; the sulphur and phosphorus enter into new combinations, and the more perishable parts soon disappear. The bones, slower to yield to the disintegrating forces, crumble at last under the action of water and the atmosphere, and return to dust. Nothing in the end remains of the wonderful organism to distinguish it from the inorganic bodies among which it was entombed. The body seems to have perished. Not only has life become extinct, but all the blocks that framed the glorious temple have been removed and scattered to the winds or mingled with the elements from which they were derived. It seems as if destroyed. To the eye the work would appear to be one of annihilation; and so the ancients thought when they gave the bodies of their friends to the funeral-pyre. They fancied that they were destroying them, and that no base or common use could ever afterward be made of what had once been a noble and revered frame. But the fire was only resolving more rapidly the cherished remains into their original constituents, effecting in an hour or two what the slow chemical processes would have required years or centuries to accomplish in the grave. In either case the elements composing the body are only changing their relations; they are scattered, not annihilated. As in life the waste particles had escaped only to enter upon new offices, feeding vegetables, which were to become in turn the food of animals, so these products of decay are diffused abroad on the air or mix with the soil to form the nutriment of plants. No power short of the Omnipotence which created matter can ever destroy a particle of it; and by the power which called living matter into existence it has been ordered that it shall be perpetually useful as well as active. Every liberated atom that leaves the bodies of animals, and of god-like man with the rest, by a fiat of the Creator goes unerringly to minister to the wants of other organisms. Dying vegetables sustain the life of animals, and animals returning to dust vegetate again in succeeding generations of plants. One kingdom supports the other, as generations of plants minister to the growth of those that follow.

“Lo! all grow old and die—but see again  
How on the faltering footsteps of decay  
Youth presses—ever gay and beautiful youth,  
In all its beautiful forms. These lofty trees  
Wave not less proudly than their ancestors  
Molder beneath them.”

"Whether we will or not, as the effete matters of our bodies go in life to nourish vegetation, after death the bodies themselves must return to the state in which they become subservient to the vegetable world. 'Nature,' as Sir Henry Thompson puts it, 'will have it so, whether we like it or not. She destines the material elements of my body to enter the vegetable world on purpose to supply another animal organism which takes my place. She wants me, and I *must* go. There is no help for it. Nature hides no talent in a napkin.' Whether the body wastes away in the grave or is consumed speedily by fire, the final result is the same.

"The question of a change in the present mode of disposing of the dead having been recently much discussed on the other side of the Atlantic, and cremation having been very seriously urged by the writer just quoted, as well as by others, as a substitute for interment of the body, it may not be uninteresting to give some thought to the subject at this time.

"Burying, burning, embalming; these are the three modes adopted by humanity for the disposal of its dead. I might stop, if time permitted, to describe what has been called the more 'phantastical' modes of disposing of the body after life has left it, as that of the Indian Brahmins, who burnt themselves alive, one of which strange people amazed the Athenians by throwing himself upon his funeral-pyre and exclaiming, 'Thus I make myself immortal;' or that of the Egyptians, who, afraid of fire, endeavored to preserve the bodies of their dead by precious embalmments and inclosures in glass; or that of the Chaldeans, who, though idolaters of fire, abhorred, it is said, the burning of their corpses as a pollution of that deity; or that of the Scythians, who, rejecting all interment, made their graves in the air; or that of the Persians, who, caring only for their bones, gave their flesh as food to dogs and wild beasts; or that of the Musselman, who affects the grave, and requires it to be of such size that he may rise in it to his knees, and there fight the final battle between the white and black angels. But I shall confine myself to the two methods of simple inhumation and cremation, and especially to the latter.

"There can be no doubt that the earliest mode was interment. The example of Abraham and of the patriarchs proves it, if we reject the tradition according to which Adam was buried near Damascus, in Mount Calvary. It is in this way that the remains of the great Israelitish leader and law-giver, Moses, were disposed

of, as we learn by the hot contest between Satan and the archangel about his body. The practice was to bury their dead out of their sight. But cremation also prevailed at an early age, and to no inconsiderable extent. Homer gives noble descriptions of funerals at which the bodies of his heroes were consumed by fire. That of Patroclus, the friend of Achilles, is one of the most imposing.

"The scene is a military camp. The troops, weary after a day of hard fighting, are gathered in silent squads around their bivouac-fires or lie sorrowful in their tents, for Patroclus, flower of warriors, has fallen by the hand of the crested Hector. His bleeding corpse lies in the tent of his foster-brother Achilles. On the glowing hearth a huge tripod is quickly placed, in which water is heated to wash the bloody stains from the manly form of the hero. When this has been done the body is anointed with rich oil, and the gaping wounds closed with an old and costly ointment. The body, wrapped in fine linen, is then transferred to a couch, and over all is spread a white mantle. Achilles, unable to restrain his grief, seeks the beach, throws himself down among his Myrmidons, and prays that the voice of the murmuring sea may drown the fierce tumult raging in his breast. Slumber at last enfolds him. The soul of Patroclus comes to his side, and in sorrowful tones entreats that their bones shall not finally lie apart, but be gathered in one receptacle, the golden urn given to Achilles by his mother.

"With the morning comes an order from Agamemnon, king of men, that a corps of the army proceed to the forest and gather wood for the mighty pyre that Achilles has designed for his friend. The wood is brought and heaped in a vast pile, a hundred feet in length and of equal width. Slowly and sorrowfully the body of Patroclus is borne from the tent and laid upon the pyre. There it is covered with the locks of the Myrmidons and the amber hair of the disconsolate Achilles. With it are deposited the heads of two favorite hounds, the fat of a score of oxen, twelve fiery steeds, and the bodies of twelve noble Trojan youths captured in battle and now slain in honor of the occasion. The torch is applied. All night long the flames leap to their devouring task, and the coming day reveals that their work is done. Dark-red wine is poured upon the still glowing embers. The somber ashes of the wood are lifted from the whiter ashes of the bones, and those lying in the center of the pyre are carefully separated from the others and gathered into a golden vase. This is wrapped in a double fold of caul and

placed in a fitting tomb, there to rest till others of equal rank with Menaetides shall become shadows; and these last sad rites concluded, the army gives itself up to races and to games.

"I might, if time allowed, give you from Homer the description of another funeral which quickly followed this—that of the noble Hector, celebrated within the walls of Troy—but I must pass on to describe a similar scene among another people.

"On the 18th of March, in the year 44 B. C., there was seen in the Roman Forum a gorgeously-gilded chapel, toward which a mournful procession was advancing. At the head of the procession, as chief mourner, was an ex-consul. Behind him, on a couch inlaid with ivory and strewn with vestments of gold and purple, a body was borne by some of the most illustrious men of Rome. It was the body of one who had been the 'foremost man of all this world.' He had led armies in Europe, Asia, and Africa, and wherever he marched victory marched by his side. For one of his campaigns he had received the honor of a triumph of fifteen days, an honor which had been accorded to no general before. Two years after this he had been honored with a triumph of twenty days. In a few years more a triumph of forty days had been decreed. The senate had saluted him with the title of father of his country, and had decreed that his triumphal car should be borne by horses of the sacred color—white—and that his figure in ivory should be borne in procession among the images of the gods. As great in peace as in war, he had after subduing his enemies turned his mind to great plans for the good of his country. He had proposed to make a digest of the Roman laws, to establish libraries, to drain marshes, to dig canals. But his career had been cut short by a band of assassins, who had plunged twenty-three daggers into his body. The assassins had proposed to throw the body into the Tiber, but had been prevented by fear. For several hours the mangled body had lain neglected where it had fallen, for the attendants of the great emperor had fled with the rest. At length three of the attendants had ventured to take up the corpse and convey it to the pontifical mansion in the Forum; for the murdered man at the time of his death was *pontifex maximus*. Here his agonized wife threw herself on the still bleeding body, and by a tearless grief bore mute testimony to the extent of her loss. His cold form was laid in the great hall, from all sides of which his long line of illustrious ancestors looked down upon it. Messengers



were dispatched for Antistius, the surgeon, who came and made careful examination of the wounds. He pronounced but one of the twenty-three stabs fatal; that had penetrated a vital organ, and Cæsar had died of hemorrhage.

“The senate had felt itself compelled to decree a public funeral. A pyre had been constructed in the Field of Mars, outside of the walls of the city; for the laws forbade cremation within the walls. But the funeral-oration was to be pronounced in the Forum, and the chapel had been erected toward which the sad procession was moving. At the head of the couch on which the body was placed lay the toga pierced by the daggers of the assassins. The people had been invited to offer for the pyre garments, jewels, spices, and the order in which they were to come had been prescribed; but so great was the rush to make offerings that the police had been unable to maintain order, and the offerers came by any route they chose. When the couch was set down the body could not be seen, but an image of wax was turned round by machinery, so that all could see the three-and-twenty wounds. And now the chief-magistrate of Rome ascends the rostra to deliver the funeral-oration. He recites the decrees of the senate, which declare sacred and inviolable the person of the murdered man, and he points to the mangled body before them. After a burst of feeling he girds his robes closely around him, advances to the bier, and chants a hymn to the body as the image of a god. ‘Thou alone, Cæsar, wast never worsted in battle. Thou alone hast avenged our defeats and wiped away our disgraces. By thee the insults of three hundred years have been avenged. Before thee has fallen the hereditary foe who burnt the city of our fathers.’ All now turn their eyes to the bloody image, and the groans of men and the shrieks of women drown the voice of the orator. Suddenly seizing the toga which hung over the body, he opens it and shows the rents made by the murderers’ daggers. And now the excitement of the people becomes uncontrollable. They cry out that the body shall not be taken to the Field of Mars, but that it shall be burned within the city. Some point to the shrine of Jupiter Capitolanus, others to the palace from which the hero’s spirit ascended to the gods. But now men come rushing forward bearing tables, beams, benches, whatever could be found in the adjoining buildings. Suddenly two young men, with swords by their sides and javelins in their hands, apply the torch. The excited multitude think that in the

young men they have seen Castor and Pollux doing honor to their hero. Upon the blazing pile the musicians throw their brazen instruments and splendid dresses, the soldiers their armor, the matrons their ornaments and even the golden bullæ which hung from the necks of their children, while the multitude feed the flames with oils and scented woods. A cry arises, 'Let us seize the brands and fire the traitors' houses!' and crowds of infuriated men, with blazing brands, rush forth toward the dwellings of the chief-conspirators. When the pyre has been consumed the remaining embers are quenched by wines, the ashes of the bones are separated from the ashes of the wood, reverently washed, wrapped in linen, deposited in a vase of a material befitting the rank of him whom the Romans placed among their gods.

"Examples of cremation among the Hebrews are related in the Scriptures of the Old Testament. Thus we read in Amos that Moab burned the bones of the king of Edom into lime; and in the first book of Samuel it is related that 'when the inhabitants of Jabesh-Gilead heard of that which the Philistines had done to Saul, all the valiant men arose and went all night, and took the body of Saul and the bodies of his sons from the wall of Bethsham, and came to Jabesh, and burnt them there. And they took their bones and buried them under a tree at Jabesh, and fasted seven days.'

"From what has been said you will see that cremation, as practiced in ancient times, was effected at a considerable cost of fuel at least; and on this account it has been objected to by a Frenchman, who declares that if all the ancients had been burned the moderns would have frozen to death for want of wood to make their fires. Recent ingenuity, however, has obviated this objection, and made it possible not only to reduce the body to ashes quickly, but with the consumption of an exceedingly small amount of fuel. Yet, with all that the most improved reverberatory furnace can do in that way, I question whether any real saving has been effected over the plan adopted in the case of Isaac, who, as we read in sacred history, carried his pyre on his shoulders.

"Among other objections to inurning the remains of the dead, some one has declared that if the previous dwellers in the world had all been preserved in vases, there would not now be left standing-room for those now alive. Sir Henry Thompson has answered this objection by proposing to scatter the ashes at once upon the fields,

that they may immediately pass to their destined uses. All bodies do not, it appears, burn equally well. The poisoned soldier mentioned by Plutarch 'put out two pyres when his belly broke.' To avoid such accidents it has been suggested to add the body of one woman to the bodies of eight or ten men, as being more inflammable, and therefore likely to make things warmer.

"The only instance of cremation in this country of which I have any knowledge occurred many years ago, and in the person of a noted citizen. I am indebted for an account of it to my learned colleague, Dr. Bell.

"Henry Laurens was one of the wealthiest merchants of Charleston. When the revolutionary struggle commenced he was in Europe superintending the education of one of his sons. He immediately returned home, threw himself with great vigor into the contest, was one of the foremost patriots of South Carolina, and enjoyed the unbounded confidence of Washington. He was elected a delegate to the Congress of 1776, and was elected president of that body. In 1779 he was sent as minister plenipotentiary to Holland; but, having been captured by a British vessel, was confined to the Tower of London for fourteen months. The British authorities made him many offers to abandon the cause of his country, but they were all spurned. Soon after his release Congress appointed him one of the commissioners to make a treaty of peace with Great Britain, and in 1782, in conjunction with Franklin and Jay, he signed the preliminaries of the treaty.

"It is known that the distinguished South Carolinian made a will which contained the most positive commands for the burning of his body. The reason for this strange order is not generally understood. Laurens had a daughter, one of the loveliest of the girls of South Carolina. When about fifteen years of age she apparently died, and was shrouded and placed in a coffin for burial. The coffin was open, and lay in a room fronting the bay. A number of her friends, young ladies and gentlemen, were sitting as watchers of the corpse. As one of the ladies walked near the coffin she was startled by a slight movement of the body, and her actions drew the other watchers to the coffin. They were soon convinced that Miss Laurens was alive. The family were summoned and prompt measures taken for her resuscitation, which were successful. She afterward married Dr. David Ramsey, the patriot and historian, and an eminent physician of Charleston. Laurens never forgot

the scene in his house connected with the narrow escape of his daughter from being buried alive. In prescribing cremation for his body, and in directing disinheritance for disobedience of this order, he declared that he could conceive of nothing more terrible than resuscitation in a closed grave. His body was burned in accordance with the injunctions of his will.

"The Christian religion brought to light a truth which finally rendered cremation odious. As it has been expressed, it 'glossed the deformity of death by careful consideration of the body.' Recognizing the body as the lodging of Christ and temple of the Holy Ghost, Christians were considerate of it, as well as of the immortal soul, and attended its burial with long services and full solemnities; and so Christianity 'gave final extinction to the sepulchral bonfires,' and the practice of cremation died out by the beginning of the fourth century.

"One of the arguments which have been presented in favor of cremation is that what remains of the body after the analysis of fire is unchangeable. As Sir Thomas Browne expresses it, 'He that hath the ashes of his friend hath an everlasting treasure. Where fire taketh leave corruption slowly enters. In bones well burnt fire makes a wall against itself.' But cremation is urged upon much more practical grounds. It is urged as a measure necessary to the health of the living in communities where great numbers of bodies are undergoing decomposition, preventing, as it does, the process of putrefaction and all its attendant evils. It is less expensive than burial, as now conducted, and renders costly cemeteries unnecessary.

"Sir Henry Thompson, one of the most brilliant surgeons of modern times, and withal a conspicuously liberal and enlightened philanthropist, thus sums up the advantages of cremation: 'For the purposes of cremation nothing is required but an apparatus of a suitable kind, the construction of which is well understood and easy to accomplish. With such apparatus the process is rapid and inoffensive, and the result is perfect. The space necessary for the purpose is small, and but little skilled labor is wanted. Not only is its employment compatible with religious rites, but it enables them to be conducted with greater ease and with far greater safety to the attendants than at a cemetery. For example, burial takes place in the open air, and necessitates exposure to all weathers; while cremation is necessarily conducted within a building, which

may be constructed to meet the requirements of mourners and attendants in relation to comfort and taste. Cremation destroys instantly all infectious quality in the body submitted to the process, and effectually prevents the possibility of other injury to the living from the remains at any future time.'

"In reading the history of cremation as practiced in various nations, one can not fail to be struck with the tenderness exhibited by the survivors to the relics of the departed. The bones were carefully washed with wine and milk, 'and mothers wrapped them in linen and dried them in their bosoms, where they had been first fostered and nourished.' Artemisia, the wife of Mausolus, even went so far as to drink of the ashes of her husband, erecting over the remainder a tomb of such magnificence that it ranked long as the seventh wonder of the world.

"But there is another fact with which we are impressed as we read this history, and that is the proof afforded every where of the early and universal respect to another life and a future state of existence. 'Before Plato could speak,' it has been beautifully said, 'the soul had wings in Homer.' All men craved immortality, and believed that their friends were alive in another world. Ulysses, that 'unconquerable man,' was unconcerned as to how he should live here, provided he could have a noble tomb after death. Socrates said to his friends, 'You may bury my body if in that you think not you are burying Socrates.' The philosopher, regarding only his better part, was indifferent whether his body should be burnt or buried. When proceeding to the last sad office they that kindled the funeral-pile turned their faces away, as expressing an unwilling ministration; and before applying the torch they raised their eyes toward heaven as the place of their hopes. Lucian, though in a jesting way, expressed the prevailing belief of his times when he said of Hercules, 'That part which proceeded from Alcmena perished, while that from Jupiter remained immortal.' Such was the belief of these ancient pagans; and, though they saw the body perishing in the flames, they were assured that the soul endured forever.

"But I must hasten to a close. Only a few words remain to be spoken. The bond which has so pleasantly united us as officers and students of the University of Louisville is now severed, and we take you, pupils no longer, by the hand as professional brothers. Be assured that you will bear away with you our best wishes. Go forth

into the world and triumph; such is the prayer of your teachers. We hope the day is far distant when the obsequies of which I have been speaking to-night will be solemnized in the case of any of you. We expect you to prove worthy of the profession in which your new title declares you to be both skilled and learned, discharging faithfully its gentle and tender offices, and fulfilling unselfishly all its lofty obligations; and then it will indeed be but a small matter with you whether your ashes shall be gathered in costly urns, or your bodies lie beneath the rock-ribbed hills or are hidden in the caverns of the sea. Doing well your duty, you need give no thought to the rest. Gentlemen, farewell!"

THE AMERICAN MEDICAL ASSOCIATION.—The twenty-sixth annual session of this association will be held in Public Library Hall, in this city, on Tuesday, May 4, 1875, at eleven A. M. The following may be of interest to physicians who propose attending:

"The delegates shall receive their appointment from permanently-organized state medical societies, and such county and district medical societies as are recognized by representation in their respective state societies, and from the Medical Department of the Army and Navy of the United States."

"Each state, county, and district medical society entitled to representation shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number; provided, however, that the number of delegates for any particular state, territory, county, city, or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the association."

"The chairmen of the several sections shall prepare and read in the general sessions of the association papers on the advances and discoveries of the past year in the branches of science included in their respective sections." . . . —*By-laws*, art. ii, sec. 4.

#### SECTIONS.

1. *Practice of Medicine, Materia Medica, and Physiology*—Dr. Austin Flint, Sr., New York, N. Y., chairman; Dr. J. K. Bartlett, Milwaukee, Wis., secretary.

Special committees appointed to report to this section:

*On Meteorological Observations*—Dr. J. M. Toner, D. C., chairman; Dr. J. J. Woodward, U. S. A.; Dr. E. Lloyd Howard, Md.

*On Clinical Observations*—Dr. N. S. Davis, Ill., chairman; Dr. H. A. Johnson, Ill.; Dr. J. B. Johnson, Mo.

2. *Obstetrics and Diseases of Women and Children*—Dr. W. H. Byford, Chicago, Ill., chairman; Dr. S. C. Busey, Washington, D. C., secretary.

Special committees to prepare business for this section:

Dr. M. A. Pallen, N. Y., chairman; Dr. L. F. Warner, Mass.; Dr. J. K. Bartlett, Wis.

Committees appointed by the above:

*On Unusual Fetal Presentation*—Dr. J. A. Ochterloney, Ky.

*On Retroversion of the Uterus in the first five months of Pregnancy*—Dr. Heaton, Mich.

*On the Connection of the Hepatic Circulation with Uterine Hyperæmias, Fluxions, Congestions, and Inflammations*—Dr. L. F. Warner, Mass.

*On the Relation of Menstruation during Lactation*—Dr. S. C. Busey, D. C.

3. *Surgery and Anatomy*—Dr. E. M. Moore, Rochester, N. Y., chairman; Dr. T. S. Latimer, Baltimore, Md., secretary.

Committee to report to this section:

*On the Treatment of Fractures*—Dr. Lewis Sayre, New York, chairman.

4. *Medical Jurisprudence, Chemistry, and Psychology*—Dr. Jerome Cochran, Mobile, Ala., chairman; Dr. G. A. Moses, St. Louis, Mo., secretary.

5. *State Medicine and Public Hygiene*—Dr. H. I. Bowditch, Boston, chairman; Dr. H. B. Baker, Lansing, Mich., secretary.

Committees to report to this section:

*On the Ventilation of Dwellings, School-houses, and other Public Buildings*—Dr. R. C. Kedzie, Mich., chairman; Dr. A. B. Stuart, Minn.; Dr. R. J. O'Sullivan, N. Y.

*On Form of Bill to establish a National Department of Public Health at Washington*—Dr. H. B. Baker, Mich., chairman; Dr. H. A. Johnson, Ill.; Dr. J. M. Toner, D. C.



*On what Legislative Action, if any, can be taken to Enforce by Law an Examination of all Persons who enter upon the Practice of Medicine and Surgery by a State Board of Medical Examiners*—Dr. Foster Pratt, Mich., chairman; Dr. S. G. Armor, N. Y.; Dr. D. W. Yandell, Ky.

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the secretary to whom such papers are sent to examine them with care, and, with the advice of the chairman of his section, to determine the time and order of their presentation, and give due notice of the same." . . . —*By-laws*, art. ii, sec. 5.

The attention of persons intending to present papers to any of the several sections is especially called to the above by-law.

The following committees are expected to report:

*On the Cultivation of the Cinchona-tree*—Dr. L. J. Deal, Pa., chairman.

*On some Diseases peculiar to Colorado*—Dr. John Elsner, Col., chairman.

*On American as compared with Foreign Winter-cures*—Dr. H. R. Storer, Mass., chairman.

*On Railroad Injuries*—Dr. W. F. Peck, Iowa, chairman.

*On Proper Legislation to Prevent the Spread of Syphilis*—Dr. S. D. Gross, Pa., chairman.

*On the Use of Pessaries*—Dr. John Morris, Md., chairman.

*On Cystic Degeneration of the Kidneys*—Dr. Jno. A. Ochterloney, Ky., chairman.

*On the Diseases of Minnesota and the Northwest*—Dr. D. W. Hand, Minn., chairman.

*On Prize Essays*—Dr. John D. Jackson, Ky., chairman. Dr. J. being absent, essays will be forwarded to Dr. Lunsford P. Yandell, Louisville Ky.

*On Necrology*—Dr. S. C. Chew, Md., chairman.

*On Rank of Medical Department of the Army*—Dr. J. M. Toner, D. C., chairman.

*On International Medical Association*—Dr. J. M. Toner, D. C., chairman.

*On Memorial on Dr. Henry Miller, deceased*—Dr. S. D. Gross, Pa., chairman.

*On Memorial on Dr. George Mendenhall, deceased*—Dr. J. A. Murphy, Ohio, chairman.

The following amendments to the plan of organization are to be acted upon:

By Dr. H. B. Baker, Michigan: "The officers of the several sections shall be nominated by the section in and for which said officers are to serve."

By Dr. Adams Jewett, Ohio: "The permanent members shall consist of all those who have served in the capacity of delegates, and of such other members as shall have received the appointment by unanimous vote, and of all others who, being members in good standing of any state or local medical society entitled to representation in this body, shall, after being vouched for by at least three members, be elected to membership by a vote of three fourths of the delegates in attendance, and shall continue such so long as they remain in good standing in the body of which they were members when elected to membership in this association, and comply with the requirements of its by-laws."

Secretaries of all state medical societies that have adopted the Code of Ethics are respectfully requested to forward to Wm. B. Atkinson, M. D., permanent secretary, Philadelphia, a complete list of the officers, with their post-office addresses, of those county and district medical societies entitled to representation in their respective bodies. This is the only guide for the Committee of Arrangements in determining as to the reception of delegates. It will also enable the permanent secretary to present a correct report of the medical organizations in fellowship with the association.

DEATH OF DR. BUSH.—Dr. James M. Bush died at his beautiful home in Lexington, Ky., on the morning of the 8th of February, 1875. His last hours were soothed by the ministrations of the surviving members of his family, and saddened, as many of the last months of his life had been.

by the absence of his son Dudley, into whose hands he had fondly cherished the hope of confiding the heritage of his own rare virtues and great name.

Dr. Bush was born in Frankfort, Ky., in May, 1808. His grandparents, Philip and Mary Bush, were Germans, and emigrated from Mannheim to Winchester, Va., in 1750. His parents, Philip and Eliza Bush, came to Frankfort at an early day. His brother, Jos. H. Bush, was distinguished for many years in the South and West as a portrait painter, and a lover of the fine arts generally. Dr. Bush had a genius largely of the same order, to which he was doubtless indebted for the achievement of much of his success in the more mechanical portion of the profession. He received his academic education at Danville, Ky. This must have been careful and thorough, for he was scholarly as a lecturer and as a writer. His general knowledge was extensive, and in the æsthetic departments he was a man of rare culture. About the year 1830 he entered upon the study of medicine and surgery in the city of Louisville, in the office of Dr. Alban Goldsmith. It was at this period that the writer of this notice made the acquaintance of Dr. Bush, which soon ripened into a friendship that ceased only with his death. His association with Dr. Goldsmith was fortunate in many regards, more particularly in giving a modern bias to his medical education. Dr. Goldsmith had just returned from Europe, and was filled with surgical ardor, and teeming with the latest developments of the science and art of surgery in the French capital. In this city of revolutions, as in other portions of Europe and in the United States, radical changes were going on in our art.

In 1830 Dr. Bush entered the Medical Department of Transylvania University, and soon attracted by his peculiar qualities of mind the attention of his illustrious friend and preceptor, Dr. Dudley. He received the degree of Doctor in Medicine in 1833, and was immediately appointed to the responsible position of demonstrator of anatomy. Professor

Dudley then held the two chairs of anatomy and surgery. In 1837 Dr. Dudley assigned to Dr. Bush the teaching of anatomy, and in 1839, on the retirement of Prof. Dudley, he was regularly appointed to the chair of surgery and anatomy. The history of medicine and surgery affords but few instances of such rapid and deserved promotion to the highest places in the profession.

In the spring of 1835 Dr. Bush married Miss Charlotte James, a daughter of Thomas James, a distinguished citizen of Chillicothe, Ohio. Miss James, though born in Ohio, was reared and educated near Louisville, Ky., at the elegant and hospitable residence of Mrs. Helen Massie. It was here that Dr. Bush first had the good fortune to meet her. Soon after marriage Dr. Bush returned to his home in Lexington, where he steadily advanced in fame and fortune, in the personal love and professional confidence of the enlightened people of that city, to the hour of his death.

In 1850 Dr. Bush, Dr. Peter, and other associate professors in Transylvania were invited to chairs in the Kentucky School of Medicine, of Louisville. This school already containing several very able men, the addition of these gentlemen made a corps of medical teachers of great strength. Dr. Bush continued his connection with Transylvania during the summer term of teaching. He lectured in Louisville for three winters, and won here the high regard which was felt for him in Lexington.

I have now given a very general and superficial history of the life of our friend Dr. Bush. Many of the details, in their chronological order, have been obtained from the secular papers of Lexington, which were filled for a time with eulogies of him. What was the basis of a character so noble, of a career so useful and distinguished, of an affection felt for him by all classes of people, of a confidence so great that when his extreme illness was announced "a feeling was almost universal that some indefinable danger was imminent,

and that the accustomed safeguard would be wanting if the great physician were taken away?"

Dr. Bush possessed a singularly well-balanced mind. His purely intellectual powers were of a high order; his perceptive faculties were keen, clear, quick, enabling him to make accurate observations upon disease and other subjects to which they were directed, separating the true from the false, the real from the hypothetical. Then he had genius of a varied kind; "that inborn, indefinable essence, including talent, and yet distinct from it." These more purely mental powers were so co-ordinated and impelled by the physical forces of the nervous system as to render him competent to achieve great results in any department of intellectual work. They were discerned at an early day by his sagacious preceptor, Prof. Dudley. He saw that Dr. Bush possessed just the combination of mental powers to make him successful as a demonstrator of anatomy, as a teacher and practitioner of medicine and surgery; hence he did not hesitate to lay wide open to him his own extensive field of business. Once there, his success was assured.

He enjoyed the confidence of his professional brethren, because they knew that his ample knowledge of medicine in all its practical departments, his diagnostic acumen, and his rational judgment in therapeutics were to be depended upon in cases of difficulty and danger. He won their admiration and love by his absolute fairness in all his professional relations. He walked along the broad, open pathway of medical science, illuminated by justice and truth. He scorned with a bitter scorn all those men who try to win success by detraction of other members of the profession. He despised charlatantry, whether practiced openly or by men who claim to be gentlemen and regular members of the profession. He certainly never did an unfair or mean thing, and I doubt whether an ignoble thought ever found lodgment in his mind. His constant association with young men kept him in sym-

pathy with them, and he stood by them in their hours of trouble as long as his fealty to honor would permit him. Graduates of medicine pointed with pride to his name on their diplomas.

The public estimate of him as a man and physician was unusually high. Few physicians have ever enjoyed so large a share of personal and professional confidence. Though never holding any official municipal position, on the occasion of his death the city council passed resolutions expressive of their high appreciation of his character, and regret that such a citizen should be removed from among them. The council attended his funeral in its official capacity, and instructed the mayor to issue a proclamation requesting the suspension of business along the streets through which the funeral-cortege moved. This is a rare honor to a physician.

L. R.

CINCHO-QUININE.—Our clinical experience in the use of the cincho-quinine having led us to think favorably of it as an antiperiodic, we confess to having experienced no little surprise when Mr. Ebert, of Chicago, stated before the American Pharmaceutical Association at its meeting in this city in August last that the compound contained neither quinine, quinidine, nor cinchonidine, and was therefore worthless. We were unwilling to allow that we had been deceived in the estimate we had formed of the powers of the drug, nor could we believe that either Mr. Nichols or Messrs. Billings & Clapp would originate a fraud. It now appears that Mr. Ebert fell in some way into an error, as a printed circular recently received contains the certificates of a number of leading chemists in different cities of the Union, in all of which it is positively affirmed that the cincho-quinine contains the several alkaloids as stated by its manufacturers. We are glad to have our good opinion of the drug sustained by such competent authority.